

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

Claim 1 (previously presented): A microscope stage assembly, comprising:
 a stage having a top side and a bottom side, an opening in said stage in the form of a linear slot;
 a carriage positioned adjacent to said slot for movement in a direction generally parallel with said slot;
 a drive means operatively arranged to move said carriage and said stage, wherein said drive means for said carriage and stage are shielded by said bottom side of said stage throughout the full range of motion of said carriage and stage, and said carriage and bearings for said carriage are shielded by said bottom side of said stage throughout the full range of motion of said carriage and said stage; and,
 a specimen retaining means on the top side of said stage, wherein said specimen retaining means is removably attached to said carriage through said opening in said stage.

Claim 2 (withdrawn): The microscope stage assembly of Claim 1, wherein said carriage and specimen retaining means move laterally relative to said stage in an x-axis.

Claim 3 (previously presented): The microscope stage assembly of Claim 1, comprising a stage mounting plate for mounting said assembly to a microscope.

Claim 4 (canceled)

Claim 5 (withdrawn): The microscope stage assembly of Claim 1, wherein said drive means for said carriage comprises a belt and pulley assembly, and a microscope stage drive mechanism for movement of said belt and pulley assembly.

Claim 6 (withdrawn): The microscope stage assembly of Claim 5, wherein said drive means for said carriage is positioned on the bottom side of said stage.

Claim 7 (withdrawn): The microscope stage assembly of Claim 1, wherein said drive means for said carriage comprises a drive mechanism suitable for detachably securing to said stage at more than one location.

Claim 8 (previously presented): The microscope stage assembly of Claim 1, comprising a first engagement means for a microscope stage drive mechanism at a first location on said stage, and a second engagement means for said microscope stage drive mechanism at a second location on said stage.

Claim 9 (previously presented): The microscope stage assembly of Claim 8, wherein said first location further comprises a rack operatively arranged to engage with said microscope stage drive mechanism, for movement of said stage in a y-axis.

Claim 10 (previously presented): The microscope stage assembly of Claim 9, comprising a stage mounting plate for mounting said assembly to a microscope, said rack mounted to said stage mounting plate, said microscope stage drive mechanism and said rack operatively arranged for movement of said stage relative to said mounting plate in a y-axis.

Claim 11 (previously presented): The microscope stage assembly of Claim 8, wherein said second location further comprises a rack operatively arranged to engage with said microscope stage drive mechanism.

Claim 12 (previously presented): The microscope stage assembly of Claim 11, comprising a stage mounting plate for mounting said assembly to a microscope, said rack mounted to said stage mounting plate, said microscope stage drive mechanism and said rack operatively arranged for movement of said stage relative to said mounting plate in a y-axis.

Claim 13 (previously presented): The microscope stage assembly of Claim 10, wherein said microscope stage drive mechanism is a unitary device adapted for movement of both said carriage and specimen retainer means relative to said stage in an x-axis, and movement of said stage relative to said stage mounting plate in a y-axis.

Claim 14 (previously presented): The microscope stage assembly of Claim 11, wherein said microscope stage drive mechanism is a unitary device adapted for movement of both said carriage and specimen retainer means relative to said stage in an x-axis, and movement of said stage relative to said stage mounting plate in a y-axis.

Claim 15 (previously presented): The microscope stage assembly of Claim 13, wherein said unitary microscope stage drive mechanism comprises an inner drive shaft and an outer drive shaft arranged coaxially with respect to said inner drive shaft.

Claim 16 (previously presented): The microscope stage assembly of Claim 14, wherein said unitary microscope stage drive mechanism comprises an inner drive shaft and an outer drive shaft arranged coaxially with respect to said inner drive shaft.

Claim 17 (withdrawn): The microscope stage assembly of Claim 1, wherein the stage further comprises edges and/or corners which are rounded.

Claim 18 (original): A microscope comprising the stage drive assembly of Claim 1.

Claim 19 (withdrawn): A microscope comprising the stage drive assembly of Claim 2.

Claim 20 (original): A microscope comprising the stage drive assembly of Claim 3.

Claim 21 (previously presented): A microscope comprising the stage drive assembly of Claim 35.

Claim 22 (withdrawn): A microscope comprising the stage drive assembly of Claim 5.

Claim 23 (withdrawn): A microscope comprising the stage drive assembly of Claim 7.

Claim 24 (original): A microscope comprising the stage drive assembly of Claim 9.

Claim 25 (original): A microscope comprising the stage drive assembly of Claim 12.

Claim 26 (withdrawn): A microscope comprising the stage drive assembly of Claim 17.

Claim 27 (withdrawn): The microscope stage assembly of Claim 1, wherein said stage includes a peripheral edge and at least a portion of said peripheral edge comprises an ergonomic rim.

Claim 28 (withdrawn): The microscope stage assembly of Claim 27, wherein said ergonomic rim is rounded.

Claim 29 (withdrawn): The microscope stage assembly of Claim 1, wherein said stage comprises at least one rounded corner.

Claim 30 (withdrawn): The microscope stage assembly of Claim 28, wherein said ergonomic rim further comprises a rounded corner.

Claim 31 (withdrawn): A microscope comprising the microscope stage assembly of Claim 27.

Claim 32 (withdrawn): A microscope comprising the microscope stage assembly of Claim 29.

Claim 33 (withdrawn): A microscope stage comprising an ergonomic rim.

Claim 34 (withdrawn): The microscope stage of Claim 33, wherein said ergonomic rim comprises a rounded edge and a rounded corner.

Claim 35 (previously presented): The microscope stage assembly of Claim 3, including drive means for movement of said stage relative to said mounting plate in a y-axis.

Claim 36 (currently amended): A microscope stage assembly, comprising:

a stage having a top side and a bottom side, an opening in said stage in the form of a linear slot;

a carriage positioned adjacent to said slot for movement in a direction generally parallel with said slot;

a drive means operatively arranged to move said carriage and said stage, wherein said drive means for said carriage and stage are ~~completely~~ substantially shielded by said bottom side of said stage, relative to said stage being viewed from a position above said stage, throughout the full range of motion of said carriage and stage, and said carriage and bearings for said carriage are shielded by said bottom side of said stage throughout the full range of motion of said carriage and said stage; and,

a specimen retaining means on the top side of said stage, wherein said specimen retaining means is removably attached to said carriage through said opening in said stage.

Claim 37 (new): A microscope stage assembly, comprising:

a stage having a top side and a bottom side, an opening in said stage in the form of a linear slot;

a carriage positioned adjacent to said slot for movement in a direction generally parallel with said slot;

a drive means operatively arranged to move said carriage and said stage, wherein said drive means for said carriage and stage are shielded by said bottom side of said stage and said carriage and bearings for said carriage are shielded by said bottom side of said stage; and,

a specimen retaining means on the top side of said stage, wherein said specimen retaining means is removably attached to said carriage through said opening in said stage.